



College of Rural Alaska

Cooperative Extension Service

MOSS CONTROL IN LAWNS

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Moss¹ and liverworts² will grow in lawns that have excessive surface moisture, low fertility, poor drainage, extremely acid soil, too much shade, or compacted soils. Moss prospers during rainy weather and will even grow throughout the winter months in temperate coastal areas. There is usually little growth during warm summers.

TREATMENT

Power rake or dethatch the area before treating a heavily infested lawn. After you remove the dead grass and moss, apply a commercial moss killer made especially for lawns, to actively growing areas. The two main ingredients that are effective are iron and potassium salt. Iron compounds act as contact herbicides and are available in granular and liquid formulations for the lawn. Iron will stain concrete and painted surface so be careful to avoid getting products on these areas. Useful iron products include: ferrous sulfate, ferric sulfate, ferrous ammonium sulfate and iron chelates. Apply the iron at a rate of 0.5 to 1.5 pounds of iron per 1000 square feet. Consult the label for product application rates.

Check to be sure you are using a product made specifically for lawns. Most moss killers made for roofs will kill or damage grass.

Potassium salts of fatty acids sold as moss killer for lawns, act as contact herbicides. These come in liquid formulation and are applied when moss is actively growing. This product will not stain concrete or painted surfaces.

If your treatment does not contain a fertilizer, fertilize soon after applying the moss killer. This will encourage the grass to become reestablished quickly. A good fertilizer program followed during the remaining growing season will help establish a healthy, vigorous lawn.

Applying a moss killer in late fall helps prevent moss growth during winters in temperate coastal areas. Winter moss growth is not a problem in areas that have cold winters.

If the lawn is sparse following moss removal, wait for a few weeks and then overseed the area with a good grass seed at one to one and one-half pounds per thousand square feet of lawn.

PREVENTION

Moss will not grow in a well maintained lawn. Grass will outcompete moss if the lawn has good fertility, correct drainage, proper pH, adequate sunlight, and loosely compacted soil. Problems with any of the following leads to a mossy lawn. Contact your local extension office for a soil test kit and follow directions to determine your lawn's requirements.

1. **Fertility** — Fertilize the lawn in spring when the ground has thawed or green grass appears. Apply a complete fertilizer such as 8-32-16 or 10-20-10. These are complete fertilizer which contain moderate levels of nitrogen, high levels of phosphorous and potassium. A high slow release nitrogen fertilizer applied monthly during the

¹Moss: very small green stems with velvety, leaf-like clusters found in moist areas.

²Liverwort: liver-shaped, dense, green growth found in moist areas.

summer will promote vigorous growth. In the fall, apply a complete fertilizer such as 10-20-10 to aid in root development and winter hardiness. A soil test is recommended every three to five years.

2. **Acidity** — Your lawn will grow best with a soil pH of 6.0 to 7.0. Apply lime following the recommendations that come with your soil sample analysis. Generally, applying 5 pounds of lime per hundred square feet (half in the spring and half in the fall) will help ensure a better lawn, but check with your local extension office; some areas of the state do not need annual applications of lime. Soil test recommendations are your best guide. Lime application will **not** kill moss; it allows the grass to grow better, and healthy vigorous turf will outcompete moss growth.
3. **Drainage** — If the soil is too wet, you will need to improve the drainage of the soil, put in drain tile or raise the ground level in low spots. Improve the drainage of the soil by aerating with a power plug aerator followed by topdressing with coarse sand. The lawn should slope away from the house. Dethatching removes the layer of dead grass that may hold excess water in the root zone. After a rainy period, walk on the lawn and determine soggy areas for future treatment or draining.

4. **Shade** — In heavily shaded areas, the lawn may not be able to outcompete moss. Removing large tree limbs may be necessary to allow more light through to the lawn underneath. Planting a shade tolerant grass, such as red fescue, also helps.
5. **Compaction** — Water can accumulate on top of grass and kill it if soil becomes compacted. Machines are available that aerate the lawn and increase drainage; garden supply companies sell low-cost devices. You can also make your own device by driving spikes through a two-by-four and attaching it to a pole. Push the spikes into the lawn, pull them out and move on to another spot. A variation on this is to put spikes on two small boards, attach the boards to an old pair of shoes, and walk around on the lawn. Home-built devices do not work as well as aerators, however they do provide some relief.

Moss is less likely to grow in healthy lawns. Diligent lawn maintenance is rewarded with a beautiful lawn.

Deeply shaded mossy areas where grass simply will not grow can be developed into a rock and fern garden. Make the best use of these damp, cool spots; let the moss grow and enjoy it!

*Written by Jim Douglas, Professor Emeritus
Technical review by Wayne Vandre, Professor Emeritus
Revised March 2005 by Michele Hébert, Land Resources Agent*

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